

REMARKS

Prior to the present amendment, claims 1-72 were pending. Claims 2, 7-21, 24, 28, 30-54, 56, and 58-72 are withdrawn from consideration by the examiner for being drawn to a non-elected invention following a response to a restriction requirement. By the present amendment, applicants have withdrawn claims 2, 7-21, 24, 28, 30-54, 56, and 58-72; canceled claim 23; and amended claims 3, 6, 22, 25, 26, 29, 55, and 57. No new matter has been added by these amendments. Accordingly, claims 1, 3, 4, 5, 6, 22, 25, 26, 27, 29, 55, and 57 are under examination.

Specification Objections

On page 4 of the office action, the examiner objected to the specification for containing various informalities. In response, applicant submit herewith a substitute specification, excluding claims, with markings to place the specification in proper idiomatic English in compliance with 37 CFR § 1.52(a) and (b). Applicants also submit herewith a clean version of the substitute specification excluding claims (without markings). No new matter has been introduced as a result of the amendment or substitute specifications. Applicant respectfully requests reconsideration and withdrawal of the objection.

Claim Objections

On page 4 of the office action, the examiner objected to claim three and 22 for containing various informalities. Applicants have made the appropriate corrections in the claim

amendments above. Applicant respectfully requests reconsideration and withdrawal of the objections.

Rejections under 35 USC § 112, second paragraph

On page 5 of the office action, the examiner rejects claims 6, 22, 25, 26, 29, 55, and 57 under 35 USC § 112, second paragraph for being indefinite. In response, applicants have amended claims 6, 22, 25, 26, 29, 55, and 57 to clarify the claims. Applicant respectfully requests reconsideration and withdrawal of the rejections.

Rejections under 35 USC § 102(b)

On page 6 of the office action, the examiner rejects claims 1, 3-6, 23, 26, 55, and 57 under 35 USC § 102(b) as being anticipated by McElroy (*The Plant Cell*, 1990, vol. 2, pp. 163-171)(hereinafter "McElroy 1990"). According to the examiner, McElroy 1990 teaches a recombinant promoter that promotes the expression of a gene in plant cells, wherein government, and promoter includes a 5'- transcription regulation element from the rice actin-1 gene followed by a core promoter comprising a TATA box, a nucleotide sequence with a GC content lower than 64%. The examiner cites page 168, ¶2, lines 1-3 of McElroy 1990 for this assertion. The examiner further alleges that the recombinant promoter disclosed in McElroy 1990 includes a transcription initiation site fused to its 3' end to a nucleotide sequence containing a first exon, an intron, and a second exon. The examiner cites the abstract, lines 8-9 of McElroy 1990.

Merely in order to expedite prosecution, applicants have canceled claim 23. With respect to the remaining claims, applicants respectfully disagree. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *MPEP* § 2131.

McElroy 1990 fails to disclose or suggest every element of the claims. For example, McElroy 1990 is devoid of any disclosure or suggestion regarding a nucleotide sequence with a GC content lower than 64%. The examiner alleges that page 168, ¶2, lines 1-3 of McElroy 1990 anticipates this claim limitation. Specifically, page 168, ¶2, lines 1-3 of McElroy 1990 states: "By constructing *Act1*-intron-deletion-*Gus* fusion plasmids, we were able to show that GUS expression and transformed rice protoplasts was dependent on the presence of an intact rice *Act1* 5' intron." The cited passage discloses nothing regarding a nucleotide sequence with a GC content **lower than 64%**.

In fact, on page 8 of the office action, the examiner acknowledges that McElroy 1990 recites on page 164, ¶ 4, lines 6-9, the following: "The 79-bp noncoding exon located 3' of the putative *Act1* TATA box is **GC-rich (77.5%)** and consists of a number of tandemly repeated A/TCC triplets" (emphasis added). Accordingly, McElroy 1990 discloses a nucleotide sequence with a GC content that is **not lower than 64%**.

Moreover, McElroy 1990 does not disclose or suggest a first chimeric exon and a second chimeric exon, as is required by the claims. On page 7 of the office action, the examiner alleges that the abstract, lines 8-9 of McElroy 1990 discloses a nucleotide sequence having such exons. The cited lines of the McElroy 1990 abstract states, "Deletion analysis of the *Act1* 5' intron suggests that the intron-mediated stimulation of GUS expression is associated, in part, with an in vivo requirement for efficient intron splicing." Nothing in McElroy 1990 discloses or suggests a sequence having a first chimeric exon and a second chimeric exon. In addition, McElroy 1990 fails to disclose or suggest a sequence that "comprises" any of the sequences as set forth in the SEQ ID NOs of the claimed invention.

Accordingly, McElroy 1990 does not anticipate the claims. Applicants respectfully request reconsideration and withdrawal of the rejection.

Rejections under 35 USC § 102(b)

On page 8 of the office action, the examiner rejects claims 1, 3-6, 23, 25-27, 29, 55, and 57 under 35 USC § 102(b) as being anticipated by McElroy (US Patent No. 5,641,876) (hereinafter "the '876 reference").

Applicants respectfully disagree. The '876 reference fails to disclose or suggest every element of the claims. For example, the '876 reference is devoid of any disclosure or suggestion regarding a nucleotide sequence with a GC content lower than 64%. The examiner alleges that column 2, lines 8-22 of the '876 reference anticipates the claims. However, the cited passage discloses nothing regarding a nucleotide sequence with a GC content lower than 64%.

In fact, on page 10 of the office action, the examiner acknowledges that the ‘876 reference recites on column 14, lines 35-38, the following: “The noncoding exon located 3’ of the TATA box is **GC-rich (77.5%)** and consists of a number of tandemly repeated A/TCC triplets” (emphasis added). Accordingly, the ‘876 reference discloses a nucleotide sequence with a GC content that is **not** lower than 64%.

In addition, the ‘876 reference fails to disclose or suggest a sequence that “comprises” any of the sequences as set forth in the SEQ ID NOs of the claimed invention. For example, the ‘876 reference fails to disclose a sequence that “comprises” SEQ ID NO: 1 of the present application.

The ‘876 reference does not anticipate the claims. Applicants respectfully request reconsideration and withdrawal of the rejection.

Rejection under 35 U.S.C. § 103(a) in view of the ‘876 reference and McElroy 1991 reference

On page 11 of the office action, the examiner rejects claims 1 and 22 under 35 U.S.C. § 103(a) as being unpatentable over the ‘876 reference and McElroy (*Mol. Gen. Genet.* Dec. 1991, 231(1): pp. 150-160)(hereinafter “McElroy 1991”). The examiner alleges that the ‘876 reference teaches the promoter of claim 1. However, the examiner acknowledges that the ‘876 reference differs from the invention claimed in claim 22, in that the ‘876 reference fails to teach wherein the 5’ transcription regulation region comprises two or more regulatory elements from different origins operatively fused. According to the examiner, McElroy 1991 rectifies this deficiency.

Applicants respectfully disagree. As stated above, the '876 reference fails to disclose or suggest every element of the claims. For example, the '876 reference is devoid of any disclosure or suggestion regarding a nucleotide sequence with a GC content lower than 64%. On page 10 of the office action, the examiner acknowledges that the '876 reference recites on column 14, lines 35-38, the following: "The noncoding exon located 3' of the TATA box **is GC-rich (77.5%)** and consists of a number of tandemly repeated A/TCC triplets" (emphasis added). Accordingly, the '876 reference discloses a nucleotide sequence with a GC content that is **not** lower than 64%, and it teaches away from the claimed invention. The McElroy 1991 reference fails to compensate for the deficiencies of the '876 reference.

The cited references, individually and in combination do not render the claims unpatentable. Applicants respectfully request reconsideration and withdrawal of the rejection.

Conclusion

In view of the foregoing amendments and remarks, entry of the amendments and favorable consideration of the claims are respectfully requested. If the examiner has any questions or concerns regarding this amendment, he or she is invited to contact the undersigned at the telephone number listed below. If any fees are due or any overpayment made in connection with this paper, please charge or credit our Deposit Account No.: 08-2461.

Respectfully submitted,

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